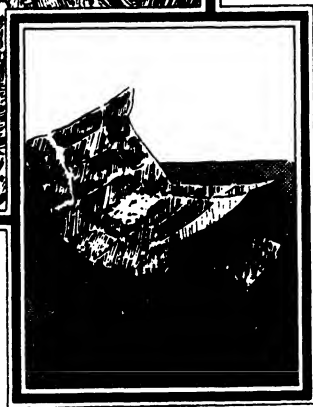


U.S. DEPARTMENT OF COMMERCE
BUREAU OF ECONOMIC ANALYSIS
WASHINGTON, D. C. 20540

U.S. DEPARTMENT OF COMMERCE
BUREAU OF ECONOMIC ANALYSIS
FOREIGN AND DOMESTIC SOURCES
IN 1981
OUT PROJECTIONS THROUGH 1985

Chapter One **Heroin**

"mini-bennies" may return to the illicit U.S. market if amphetamine abuse continues to grow and domestic clandestine laboratories are immobilized. LSD does not appear to be poised for a comeback in the immediate future. It is too soon to predict when "look-alike" drugs will be brought under control in view of present legal uncertainties.



Abuse Trends

At the national level, the number of heroin-related hospital emergencies rose in 1981 for the third consecutive year. Generally, heroin episodes were at higher levels as compared to 1979 in East Coast cities. (See Figure 2.)

Figure 2.
Heroin Abuse and
Trafficking Indicators,
1977 - 1981

	1977	1978	1979	1980	1981
Hospital Emergencies Reported Through the DAWN System*	8,729	7,057	6,822	8,680	9,666
Of which					
Boston	(323)	(658)	(368)	(403)	(440)
Detroit	(2,098)	(1,723)	(1,147)	(1,252)	(1,211)
Los Angeles	(680)	(464)	(255)	(302)	(485)
New York	(1,758)	(1,319)	(2,201)	(3,890)	(4,111)
Philadelphia	(257)	(160)	(149)	(279)	(344)
Washington, D.C.	(279)	(206)	(379)	(841)	(900)
Overdose Deaths*	718	575	619	856	930
Federally-funded Admissions for Treatment of Narcotics Addiction	111,289	100,131	95,198	93,705	89,190
Federal Arrests	4,486	2,510	2,107	2,033	2,452
Federal Removals (pounds)	1,086	759	409	506	333

*Data for 24 Standard Metropolitan Statistical Areas (SMSAs) for 1977 and 1978; thereafter data represents 26 SMSAs

Source: Project DAWN annual reports and DEA enforcement statistics

Treatment admissions continued to decrease in 1981. However, it is difficult to assess this change in view of funding cutbacks which might have affected treatment availability as well as reporting. The proportion of new clients admitted to narcotics treatment as compared to readmitted clients declined from 35 percent in the first half of 1976 to 26 percent in 1981, while the number of clients admitted in their first year of use has remained fairly constant at about 2.5 percent since 1977. The client population was older on the average in 1981, although this was not true of all cities. The proportion of heroin clients reporting use of secondary drugs did not change appreciably in 1981, with the exception of a

further rise in cocaine use. (See Figure 15, Chapter 4, below.)

In the northeastern United States retail heroin purity fell while prices rose in 1981, suggesting a slight lessening in heroin supply. Heroin-related episodes continued an up-trend nationally, but particularly in the SMSAs of New York, Washington, D.C., Boston, Philadelphia and Los Angeles. Local authorities in Boston relate the increase to the availability of more potent white heroin, and addicts there and in Philadelphia tended to be younger than in previous years. Heroin was readily available in New York City, and deaths and episodes remained above 1979 levels. Treatment admissions did not increase because most treatment centers were running at capacity. Addicts were generally older.

Average retail purities in the Southeast during 1981 were comparable to the previous year but prices increased somewhat. Abuse data show a more severe problem than in 1980: Washington, D.C. reported 114 heroin overdose deaths during 1981, compared to 59 in all of 1980 and 35 in 1979. Heroin emergency episodes increased in Atlanta and New Orleans, and will almost certainly rise in Washington when the 1981 data are complete. Similarly, the treatment admission rates for Atlanta, Miami, New Orleans, Norfolk, and Washington increased in 1981.

The retail price and purity index suggests a slight decline in heroin supply in the Midwest during 1981. Average purity decreased eight percent while prices rose 29 percent from the end of 1980 to the end of 1981. Heroin-related episodes increased in Chicago, Cleveland, and Detroit during 1981, although treatment admissions were stable or declined slightly.

In the Southwest indicators show conflicting trends but, overall, suggest increasing availability and abuse of better-quality heroin. Both price and purity in 1981 were above the 1980 levels, while San Antonio experienced rising purities and falling prices, traditionally considered indicative of a more abundant supply. Denver reported 48 episodes in 1981, compared to 23 in 1980. San Antonio and Dallas had smaller increases. Treatment admissions data, however, show sharp declines in heroin abuse as other drugs become more popular.

The most notable development in the domestic heroin situation during 1981 occurred in the West. Retail purity rose steadily from 4.8 percent in the fourth quarter of 1980 to 7.4 percent at the middle of 1981. Average prices dropped almost 32 percent during the same period. DAWN data indicate higher abuse levels: From 1980 to 1981 heroin-related hospital emergencies increased by 60 percent (to the 1978 level) in Los Angeles, by 70 percent in Seattle, and by almost one-third in San Diego.

U.S. Heroin Market Developments*

In general, availability of heroin in the U.S. market stabilized in 1981 after a three-year period of rapid influx of heroin from Southwest Asia. There were major changes in some cities and regions, however. The most notable shift at the national level was the drop in SEA heroin's market share despite the recovery of Golden Triangle opium production from the effects of a prolonged drought. By year's end, SWA heroin achieved a virtual monopoly of East Coast markets, while Mexican heroin increased its dominance of the West Coast. (See Figure 3.) The estimated shares of the national market taken by each type of heroin in 1981 were:

	Percent
Southwest Asian	54
Mexican	36
Southeast Asian	10
Total	100

Figure 3
Origin of Heroin
Encountered in
representative U.S.
Cities, 1981

The general scarcity of SEA heroin during 1981 has been attributed to the inability of SEA heroin traffickers to re-

*The following analysis is based on the results of two complementary data collection programs funded by the Drug Enforcement Administration to determine the source and nature of heroin encountered in major U.S. consumer cities. Heroin signature analysis reveals the type of heroin, its manufacturing process and its availability. The Domestic Monitor Program (DMP) provides price and purity data, and indicates changes in use patterns, marketing practices, ethnic characteristics of the dealers and availability. The DMP involves controlled covert purchases of street-level heroin in selected cities, its subsequent laboratory analysis and signature classification.

cover their share of the market, lost after the drought in Southeast Asia in the 1978/79 and 1979/80 growing seasons. It may well be, however, that this inability to penetrate the United States on a significant national scale may not be temporary. As long as sufficient supplies of Mexican and SWA heroin are readily available, the more entrenched trafficking organizations in the Northeast and Southwest may be capable of excluding SEA heroin from the majority of large metropolitan markets. (See Figure 4 for generalized heroin trafficking flow within the U.S. during 1981.)

The pattern of heroin purity did not change much through the country, except for the emergence of some highly potent

Figure 3
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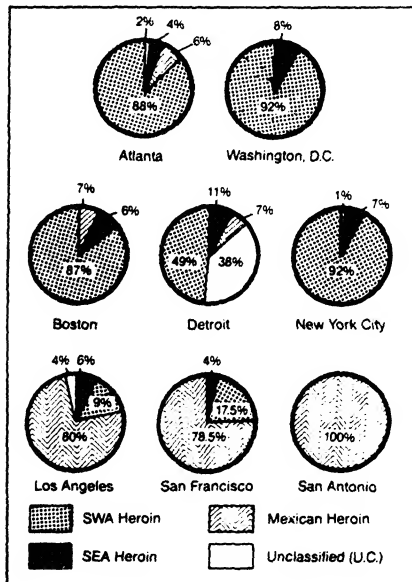
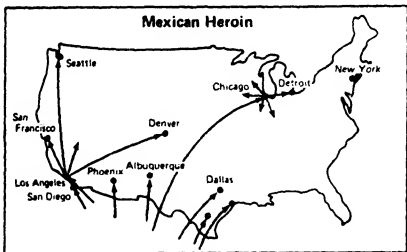
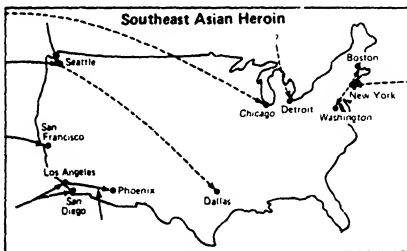
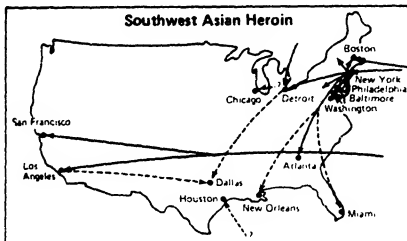


Figure 4.
Generalized Heroin
Trafficking Flow
within the United
States, 1981



————→ Primary Route
 - - - - -→ Secondary Route

Mexican heroin on the West Coast and on the Lower East Side of Manhattan, where the practice of snorting heroin created a demand for higher potency in order to achieve results similar to those obtained by injection of less potent heroin. Another change was the increase in seizures of opium in the United States in 1981. SWA opium gum was shipped in large quantities, via air freight and by ship to ports along the East Coast and SEA opium gum, in lesser quantities, has been smuggled via international mail into cities in the East and West. This opium smuggling probably reflected a demand by oriental residents who customarily smoked opium before emigrating to this country. There was no verifiable indication that any of this opium was destined for refinement into heroin, although there have been unconfirmed reports of mobile heroin laboratories in Florida and a laboratory in the Northeast.

The type of heroin most available in East Coast cities has not changed appreciably during the past two years. In 1981, SWA heroin continued to account for about 90 percent of the market; SEA No. 4 heroin accounted for the other 10 percent. Except on the Lower East Side of Manhattan, purity and prices rose only slightly. Because of the recently encountered prevalence of snorting heroin on New York's Lower East Side, it became routine to purchase street-level heroin there averaging around 25 percent pure. According to informants, individuals also bought this heroin for injection, though it is not known if they cut it before they injected it. Despite this unusual circumstance in New York, heroin-related episodes in the East actually declined about three percent during the past two years.

In the southern part of the United States, SWA heroin was predominant, accounting for about 90 percent of the samples obtained in 1981. SEA heroin proved hard to find in 1981, its market share declining to about five percent, down from 30 percent in 1980. Mexican heroin was available in Atlanta and some other cities in the South, though not in Washington.

Mexican heroin remains predominant in the Midwest except for Detroit, where SWA heroin is generally encountered. This market anomaly is associated with the large Lebanese population and the fact that Lebanese smugglers

have alternate routes (through Canada) from the Middle East to the traditional point of entry at New York.

In 1981 the purity of Mexican heroin in the Midwest declined 25 percent while prices rose about 35 percent, a combination characteristic of a controlled market. The declining purity may account for the fact that heroin-related episodes did not increase noticeably in that year. Since late 1980, SWA and SEA heroin have become relatively scarce. SWA heroin now accounts for about 25 percent and SEA heroin for about eight percent. This is almost a 50 percent decrease for both types.

Developments in Source Countries

A. Southwest Asia *1. Opium Production*

The major producers of opium in Southwest Asia are Iran, Pakistan, and Afghanistan. There have also been occasional reports of opium poppy cultivation in Lebanon.

Turkey had been the principal supplier of illicit opium in the heyday of the "French Connection." Poppy growing is now permitted there only under strict controls. Turkey's control and eradication programs are based on a total ban on opium poppy cultivation except in licensed plots. Incision of poppy pods to obtain opium gum is also proscribed and only straw harvest is permitted under tight government control. These controls have effectively eliminated illicit production and diversion. Since the first harvest of "poppy straw" in 1974, there have been only occasional reports of illicit opium production in Turkey. No Turkish opium diverted from the controlled poppy cultivation has been detected in illicit channels for several years. Limited illicit poppy cultivation continues in some remote areas, but it results in little or no significant heroin traffic.

In Iran, opium production was controlled fairly well prior to the change of government in 1979. Only enough opium acreage was licensed to meet the needs of those opium addicts registered with the government, however. This was far from sufficient to meet the needs of the country's addict population, the world's highest. The deficit was made up by

opium smuggled in from Pakistan and Afghanistan. The opium licensing and distribution system was swept away in the collapse of the old regime, and nothing has been put in its place. Production probably exceeds the ceiling of 300 metric tons set by the former shah. Since opium cultivation occurs in areas outside the central government's control, production would not be affected by Tehran's policies anyway. Reports of continuing opium smuggling from Pakistan into eastern Iran suggest that Iranian opium production remains insufficient to satisfy local demand. It is also possible that while Pakistani opium is entering Iran from the east a significant amount may also be leaving from the western part of the country, some in the form of morphine base. Opium production has undoubtedly continued, and may have increased, in an area of northwestern Iran populated largely by Kurds. This region was never easily controlled from Tehran, and the Khomeini regime has as yet not been able to change this situation.

The Iranian government made little real progress in 1981 in reorganizing its narcotics suppression efforts. For a six-month period until his resignation in December 1980 Sadeq Khalkhali struck terror into the hearts of opium and heroin suppliers from his bench as chief judge of the anti-narcotics court. The frequency of his death sentences and the zealotry of his minions in pursuing evildoers probably had a chilling effect on many opium farmers, even though the anti-narcotics crusade was directed primarily at traffickers. Khalkhali's successor has outlined a program, but it remains to be seen whether it will have major impact on the rampant narcotics traffic. The announcement that 20,000 arrests/trials were effected from April 1981 to October 1982 suggests that petty dealers and addicts rather than big-time traffickers are being caught in the enforcement sweep. These factors, combined with Tehran's preoccupation with its war with Iraq, inflation, unemployment, subversion, insurgency and terrorism indicate that the prospects for an effective narcotics control program in Iran are distant at best.

Pakistan has been the only opium-producing country in the region to remain comparatively unaffected by political upheavals in the last three years. The Pakistani government prohibited opium poppy cultivation in part of the "merged

areas" in the 1981/82 crop year.* (Until the ban is extended to all of the "merged areas" and, especially, to the autonomous tribal areas--and consistently enforced--it cannot be considered fully effective.) Opium production estimates for Pakistan are more reliable than those for Iran or Afghanistan. Pakistan is considered ordinarily to be the major source country for opium used in the production of SWA heroin. If Pakistan's production fell while Afghanistan's production was maintained at high levels, it is possible that in some years Afghanistan could outstrip Pakistan in providing opium to the heroin refineries of the Northwest Frontier Province.

Pakistan's opium reserve stocks, estimated at 300-400 metric tons in mid-1980, were drawn down during 1981 because sales exceeded replenishment by the 1981 harvest (see tabulation) and possible imports from Afghanistan. Among the causative factors were the continuing growth of the Iranian opium market and the sudden increase in the demand for opium by Pakistani heroin laboratories, which surged onto the international trafficking scene in 1981. At the end of that year, opium stockpiles in Pakistan stood at an estimated 200-250 tons.

Opium Production in Pakistan	
Year	Metric Tons
1974	200
1975	150
1976	200
1977	225
1978	370-555
1979	800
1980	125
1981	100

With average yields Pakistan's 1982 opium poppy harvest should fall between 75 and 125 tons. Unfavorable weather

*The so-called merged areas are those in various stages of transition from local to central government control. The ban was enforced only in that part of the Buner Sub-Division of Swat District in the Northwest Frontier Province where the United Nations Fund for Drug Abuse Control is carrying out a pilot crop and income substitution project.

in northwest Pakistan has plagued poppy growers almost from the time of planting: first a period of dry, cold weather which inhibited plant establishment, and then several months of unprecedented heavy rains, which probably washed away plantings along streams. If the damage to poppy fields has been as great as that feared by local experts when speaking about other crops, Pakistan's opium production, as well as that of neighboring Afghanistan, could have fallen substantially in 1982, with the likelihood that farmers increased their plantings for the 1982/83 crop year.

The opium situation in Afghanistan remains murky, as reporting on opium cultivation has been sparse since the Soviet occupation of that country in 1980. Because of the disruption caused both by military operations and the flight of refugees it is unlikely that opium exports have continued at pre-invasion levels. Afghanistan has never instituted poppy crop control. Sources in Afghanistan speculate that the 1981 opium crop may have been as high as 200-250 tons. However, given the present situation in the country, it is impossible to verify this estimate. Recent trips to the border area reveal an abundance of freshly harvested opium which the local traffickers allege to be of Afghan origin.

Sporadic reports of opium seizures by Egyptian authorities indicate that limited poppy cultivation continues in the lower valley of the Nile. The current status of opium cultivation in the Bekaa Valley of Lebanon is not known.

2. Heroin Laboratory Activity

By late 1981, laboratories engaged in production of SWA heroin existed in Pakistan, Turkey, Lebanon, Iran, Italy, and France. They were also suspected in Syria. The laboratories in Pakistan are located primarily in the tribal areas of the Northwest Frontier Province, although one was seized in the coastal city of Karachi during 1981. Those in Turkey were in the Kurdish-populated southeastern part of the country.

Discoveries of heroin laboratories in both southern France and Italy since 1979 are evidence of the revival of the European heroin industry. Although there had been some suspicion that refining of morphine base into heroin had recommenced in France or Italy (or both) as early as 1975, the

first concrete evidence did not surface until early 1978. After a lengthy investigation, French officials seized a heroin laboratory at La Ciotat, a small town near Marseille. Thirty kilograms of morphine base were confiscated, and three persons, including two chemists, were arrested on the site. One of these chemists had a record as an operator of clandestine laboratories dating back to 1969. Four additional accomplices were later arrested, including two Italians who had delivered the morphine base. Heroin laboratories were active in Italy in 1981 at several locations. One or more operated in the Palermo area of Sicily, with at least one other in what appeared to be steady production in or near Milan. There were also some unconfirmed indications of laboratory activity around Reggio Calabria.

3. Intra-Regional Consumption

Much of the opium produced in Southwest Asia is consumed within that region, but the incidence of drug abuse varies as do the ratios among the forms of opiate consumed. Opium abuse is most widespread, particularly in Iran, where the number of habitual users may have passed 800,000. The number of heroin addicts in the country is also rising, judging from the volume of Iran-bound heroin seized by Pakistani authorities, and could exceed 75,000. Afghanistan's addict population was roughly 100,000 when the Soviets invaded the country. How the prolonged military struggle between Soviet units and Afghan guerrillas (*mujahedin*) has affected the addict population is difficult to say. Likewise, there is insufficient information on which to base a judgment as to whether a disproportionate number of opiate users fled the country in the refugee stream.

Pakistan's estimated 300,000 opium addicts consume a significant fraction of its annual production. Several reports have spoken of increased heroin abuse in the Lahore-Rawalpindi area, the Karachi area, and in Baluchistan. Increased heroin availability in the cities of the Punjab could be attributed to increased supplies from laboratories in the Northwest Frontier Province. Increased heroin use in Baluchistan could come from increased contact between the Baluchi tribesmen and the Pathan heroin smugglers whose shipments pass through their territory. It is possible that the Baluchis received heroin in payment for their services as es-

corts or as a transit fee. They could also be acquiring the habit from their Iranian neighbors.

There have been recent indications of opiate abuse in the oil-producing countries along the western shore of the Persian Gulf, primarily among the large numbers of foreign workers. There are also believed to be 500,000 opium users in Egypt, concentrated in the Cairo area. Egypt has a long-standing opium abuse problem and a lesser problem with hashish. The Cairo government is doing its best through education and enforcement action to combat narcotics trafficking, but its efforts are met with indifference on the part of the general population. The use of dangerous drugs is increasing among young people, and the average age of Egyptian drug users is estimated to have declined from 40 to 19 years between 1968 and 1978. Another unwelcome development is the entry of girls and young women into the ranks of drug abusers.

4. Trafficking Patterns

The traffic in SWA heroin is a multi-national operation crossing the borders of a number of countries and involving cooperation of diverse ethnic groups in complementary roles. The movement of morphine base by sea from Turkey to Sicily became highly organized in early 1980 through the efforts of a major Syrian trafficker who arranged ship-to-ship transfer of multi-hundred-kilogram shipments off the Aegean coast of Turkey. Persons involved in European heroin production are generally of Italian or French nationality. In some cases, both nationalities are represented in the same working unit. The degree to which operations are integrated or coordinated is suggested by evidence obtained in a laboratory seizure made in November 1979 at San Remo, Italy (near the border with France). The equipment had been moved there some months earlier from another heroin laboratory in southern France. Some traffickers arrested in recent laboratory seizures have had records going back to the "French Connection" period of the early 1970s.

The links between the heroin production groups of Europe and the distribution groups in the United States are based largely on kinship. The relationships are essentially between members of extended families with branches in Italy and the

United States which are engaged in organized crime in both countries. Sons, brothers, uncles, nephews, cousins, and in-laws are active at all trafficking levels; female family members also sometimes play various roles. In addition to bona fide relatives, "family" members in the organized crime sense are also extensively employed, often as couriers.

Ethnic Armenians also have played important roles in European heroin production. Between September 1979 and September 1980, six Armenians and two Turks were arrested in heroin laboratory-related investigations in the Marseille area. One of these was a major violator under investigation by the French police since 1971. He and four others had French citizenship. The other had Turkish citizenship and was arrested with one of the Frenchmen and two Turks while attempting to deliver morphine base in the early 1970s. (An "Armenian connection" in Turkey with good contacts and fluency in Turkish can be an asset to European heroin laboratory operators.) Armenian participation in the European heroin industry was further exemplified by the seizure of a heroin laboratory in July 1981, at St. Maxim, France (about 40 miles east of Marseille). Ten kilograms of freshly made heroin were seized along with seven kilograms of morphine base identified as having come from Turkey. The operator of this laboratory was another French citizen of Armenian background. He and 11 of his associates were arrested in the raid.

India is the world's largest supplier of legitimate opium. Approximately 90 percent of the world's supply is produced annually under strict central government control. About 10 percent of all licitly produced opium is thought to be diverted to the illicit market. A large percentage of this diverted opium is used domestically by the Indian opium-eating population for medicinal purposes and to alleviate hunger. Some is also exported and/or converted in clandestine laboratories.

B. Southeast Asia

1. Opium Production

After two years of drought, the Golden Triangle opium crop yielded an estimated 600 tons during the 1980/81 growing season. This contrasts sharply with production of the previous two years. Estimates of opium production for the

Golden Triangle countries for the past three crop years are:

	1978/79	1979/80	1980/81
Burma	95-110	150-170	500
Laos	50	40	50
Thailand	15-20	10-15	50
TOTAL	160-180	200-225	600

The 1980/81 harvest can be considered a "bumper crop," since in pre-drought years production usually amounted to 400-450 tons. Past weather patterns indicate that the area will not experience another drought for some years. Favorable climatic conditions prevailed during the 1981/82 season and this crop, too, has reached an estimated 600 tons.

2. Trafficking Routes and Patterns

Trafficking routes and patterns remained much the same as in past years. Human or animal caravans carried opium from Burma's Shan and Kachin States to refineries along the Thai/Burma border. Refined opiate products were transported from the border area to Bangkok and southern Thailand on tour buses, trucks, trains, and in privately owned cars. Alternate routes, from northeastern Burma to Rangoon, other major inland cities, and ports along the Andaman Sea, were used with increased frequency during 1981. From these points opium and opiate products were transported to transshipment locations in Thailand or to refineries along the Thai/Malaysian border. Fishing trawlers also conveyed opiates from Thailand to rendezvous points in international waters off Hong Kong.

Several paramilitary/insurgent organizations handle the movement of opium and the process of refining it into heroin. These organizations include the Shan United Army (SUA), the Lahu National Liberation Army, the Burmese Communist Party (BCP), and the 3rd and 5th Chinese Irregular Forces (remnants of Chiang Kai-shek's Kuomintang). The SUA, based in a remote area of Thailand near the Burma border and headed by Chang Chi-fu, is responsible for an estimated 70 percent of all narcotics produced in the border